FOREST EXCISE TAX – ROAD SUMMARY SHEET

Region: Northeast

Timber Sale Name: Solly

Application Number: 76911

Excise Tax Applicable Activities

Construction: 3,779 **linear feet**
Road to be constructed (optional and required) but not abandoned

Reconstruction: 3,913 **linear feet**
Road to be reconstructed (optional and required) but not abandoned

Abandonment: 993 **linear feet**
Abandonment of existing roads not reconstructed under the contract

Deactivation: 0 **linear feet**
Road to be made undriveable but not officially abandoned.

Pre-Haul Maintenance: 984 **linear feet**
Existing road to receive maintenance work (specifically required by the contract) prior to haul

Excise Tax Exempt Activities

Temporary Optional Construction: 0 **linear feet**
Optional roads to be constructed and then abandoned

Temporary Optional Reconstruction: 0 **linear feet**
Optional roads to be reconstructed and then abandoned

New Abandonment: 1,800 **linear feet**
Abandonment of roads constructed or reconstructed under the contract

All parties must make their own assessment of the taxable or non-taxable status of any work performed under the timber sale contract. The Department of Revenue bears responsibility for determining forest road excise taxes. The Department of Natural Resources developed this form to help estimate the impact of forest excise taxes. However, the information provided may not precisely calculate the actual amount of taxes due. The Department of Revenue is available for consultation by calling 1.800.548.8829.

(Revised 7/04)

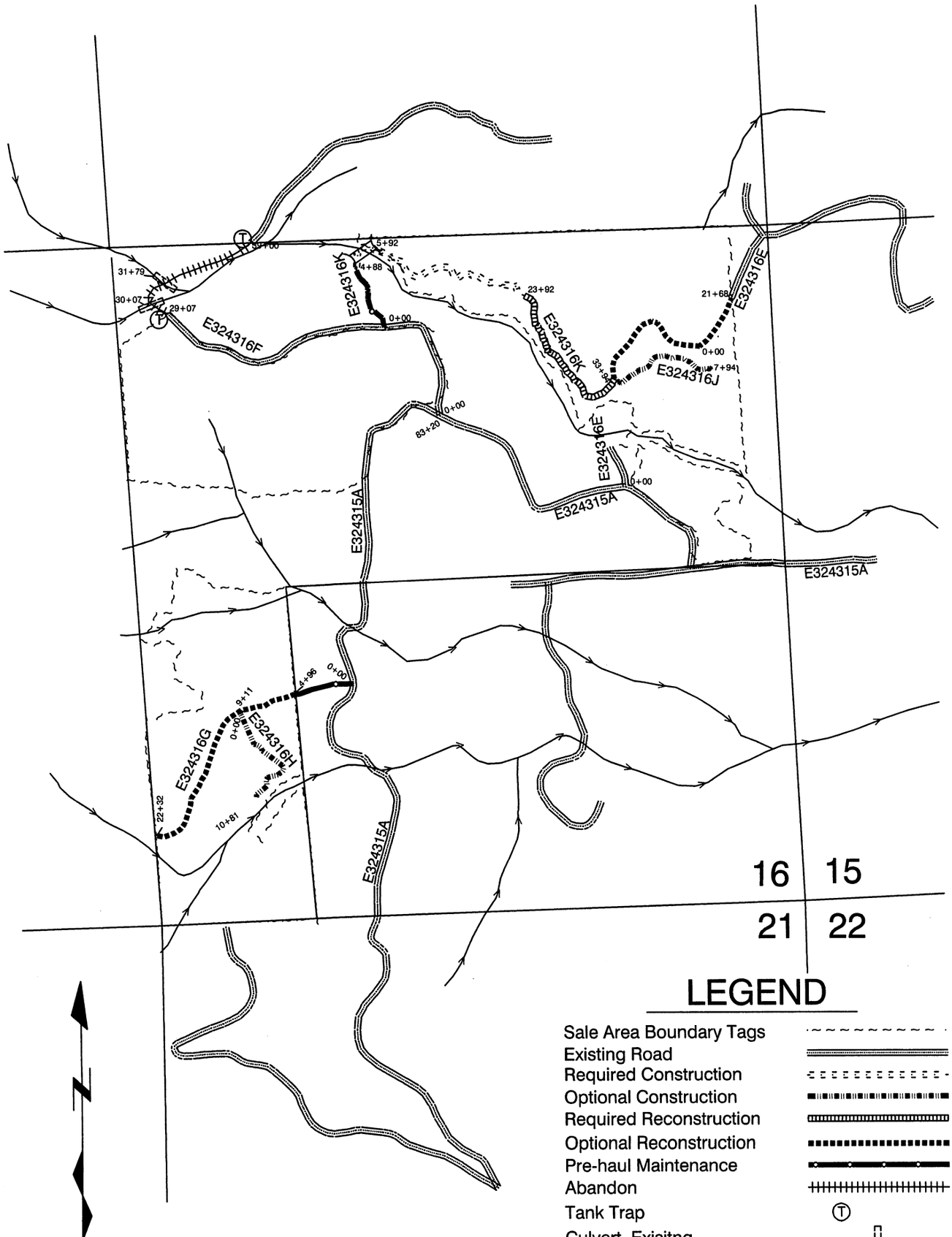
STATE OF WASHINGTON

DEPARTMENT OF NATURAL RESOURCES

Agreement No.: 30-076911
Name of Sale: Solly
Trust: 03

Region: Northeast
County: Pend Oreille
TOWNSHIP 32 NORTH, RANGE 43 EAST, W.M.

ROAD PLAN



LEGEND

- Sale Area Boundary Tags
- Existing Road
- Required Construction
- Optional Construction
- Required Reconstruction
- Optional Reconstruction
- Pre-haul Maintenance
- Abandon
- Tank Trap
- Culvert, Exisitng
- Culvert, New
- Stream
- Bridge, New

Scale: 1" = 1000'
Drawn By: GP
Date: 11/3/2004

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES

ROAD PLAN

AGREEMENT NUMBER: 30-076911

SALE NAME: Solly ROAD PLAN DATE: 11/3/2004

SCOPE OF PROJECT

This project includes, but is not limited to construction including; clearing; grubbing; right-of-way debris disposal; excavation and/or embankment to subgrade, acquisition and installation of drainage structures, drilling and blasting of rock in the course of right-of-way construction may be encountered.

DEFINITIONS

Construction
Where in the terms of this contract the activity of building a new right of way and road over ground that has not had a previously established road, or is a relocation that is at least a full right of way width from an existing road.

Reconstruction
Where in the terms of this contract the activity of right of way development and road building in a location that lies completely or partially within the right of way of an existing road and which activity is required or recommended to improve upon the pre-existing conditions. Reconstruction includes activities that would be classified as a **Class II, Class III or Class IV Special Forest Practice.**

Pre-haul Maintenance
Where in the terms of this contract the activity of right of way development and road building in a location that lies completely or partially within the right of way of an existing road and which activity is required or recommended to improve upon the pre-existing conditions. Pre-haul maintenance includes activities that would be classified as a **Class 1 Forest Practice.**

Maintenance
Where the pre-existing conditions of an existing road were acceptable to the State prior to this contract, and the repair and/or replacement of materials, components or structures become necessary as result of deterioration by use or inordinate damage during the terms of this contract.

Designated Skid Trail
Where the State has marked a preferred location for the forwarding of valuable materials to an established road or landing, and which alternatives to the designated location require approval from the Contract Administrator.

Abandonment
Where in the terms of this contract the activity of blocking, controlling the erosion and water movement within natural drainages, removing all drainage structures, and removing unstable fill slopes that have delivery potential. This activity may include but is not limited to obliteration of road prisms, haying and revegetation of exposed soils, and scattering of natural debris.

SECTION 1 - GENERAL CLAUSES

1.1 Clauses in this plan apply to all construction and/or reconstruction, including landings unless otherwise noted.

1.2 Construction, reconstruction, pre-haul maintenance, and abandonment of the following road/s are required. All road/s shall be constructed on the State's location, and in accordance with this Road Plan.

Road	Length	Type
E324316F	9.93 stations	Abandon
E324316G	4.96 stations	Pre-haul Maintenance
E324316K	4.88 stations	Pre-haul Maintenance
E324316K	19.04 stations	Construction
E324316K	10.02 stations	Reconstruction
E324316K	18.00 stations	Abandon

1.3 Construction or reconstruction of the following road/s is not required. Road/s constructed shall be on the State's location and in accordance with this Road Plan.

Road	Length	Type
E324316G	17.36 stations	Reconstruction
E324316H	10.81 stations	Construction
E324316E	11.75 stations	Reconstruction
E324316J	7.94 stations	Construction

1.4 This sale also includes, but is not limited to reconstruction including;

ROAD	STATIONS	REQUIREMENTS
E324316K	23+92 – 33+94	Reshape road surface, brush right of way, install rolling dips.

1.5 This sale also includes, but is not limited to pre-haul maintenance including;

ROAD	STATIONS	REQUIREMENTS
E324316G for	0+00 – 4+96	Reshape road surface, brush right of way, provide drainage.
E324316K for	0+00 – 4+88	Reshape road surface, brush right of way, provide drainage.

1.6 If the Purchaser desires a road location or design change, a revised Road Plan shall be submitted to the State for consideration.

1.7 On this plan, quantities are minimum acceptable values. Additional quantities required by the State because of hidden conditions, or the Purchaser's choice of construction season or techniques shall be at the Purchaser's expense. Hidden conditions include, but are not limited to, solid subsurface rock, subsurface springs or saturated ground, and/or unstable soil conditions.

1.8 Purchaser shall not use roads constructed or reconstructed under this Road Plan for hauling, other than timber cut on the right-of-way, without written approval from the Contract Administrator.

1.9 Roads shall be constructed using track mounted hydraulic or cable excavators unless otherwise authorized, in writing, by the Contract Administrator.

1.10 Pioneering shall not extend past construction that will be completed during the current construction season. Drainage shall be provided on all uncompleted construction, as approved in writing by the Contract Administrator.

Clearing and grubbing shall be completed prior to starting excavation and embankment.

Culvert placement in live streams shall precede embankment where culverts are to be placed along natural ground slopes. Temporary diversion culverts shall be provided when

designed culverts are elevated above natural ground within embankments.

Culverts shall be installed in completed subgrade as construction progresses.

Subgrade, ditches and culvert installation shall be completed and are subject to written approval by the Contract Administrator prior to the application of rock, or final subgrade compaction.

1.12 Construction restrictions apply to this contract. All construction and transportation of heavy equipment and/or trucks is prohibited between and including the following dates, except as may be authorized, in writing, by the Contract Administrator.

February 15 to May 15

1.13 Designated Skid Trails are included as part of this project. The intended uses of Designated Skid Trails are for transferring merchantable materials to/from/between landings and roads with log skidding equipment. The grades and location are not considered by the State to be suitable for truck traffic. Designated Skid Trails are considered, as part of this contract, to be single lane with one direction of traffic at a time, unless the Contract Administrator approves alternate traffic and width plans in writing.

1.14 Landings are required to be constructed at specific locations. The relocation of landings in the vicinity of those designated, and the use of additional landings in this project shall be subject to written approval from the Contract Administrator. Landings shall be sloped sufficiently to provide controlled drainage, without ponding or concentration of sediments into streams.

1.21 Maintenance on all road/s used, constructed or reconstructed under this Road Plan shall be performed in accordance with the Forest Access Road Maintenance Specifications.

Rutting of finished road surfaces shall not exceed 4 inches in depth. In the event that surface or base stability problems may persist, the purchaser/contractor will be required to cease operations, or perform corrective maintenance and/or repairs, subject to specifications within this contract, and the written approval of the Contract Administrator.

1.23 Snowplowing shall not be permitted unless authorized, in writing, by the Contract Administrator.

SECTION 2 - CLEARING

2.1 Fell all vegetative material larger than 6 inches d.b.h., or over 20 feet high between the marked right of way boundaries, and within waste and/or debris areas. If clearing limits are not marked in the field, clearing limits are as specified on the Typical Section Sheet.

2.2 Deck all merchantable right-of-way timber. The decks shall be parallel to the road centerline, and within the cleared right-of-way. The decks shall be free of dirt, limbs and other debris, and removable by standard log loading equipment from the completed roadbed.

2.3 Brushing shall be done in accordance to the attached Brushing Detail. Lesser standards may be applied with permission by the Contract Administrator.

SECTION 3 - GRUBBING

3.1 All stumps shall be removed that fall between grubbing limits shown on the Typical Section Sheet. Those with undercut roots shall be removed. Stumps over 22 inches in diameter shall be split. Stumps over 40 inches in diameter shall be quartered.

3.2 Grubbing Limits are defined as the entire area between the external limits shown on the Typical Section Sheet.

3.3 Removal of stumps shall not be required, within the waste and/or debris areas, provided that they are cut flush with the ground.

SECTION 4 - DEBRIS DISPOSAL AND REMOVAL

4.1 Right-of-way debris is defined as all nonmerchantable vegetative material larger than one cubic foot in volume, within waste area and/or clearing limits as shown on the Typical Section Sheet.

4.6 Right-of-way debris shall be scattered outside the right-of-way limits in natural openings. Debris shall not be placed against standing timber. Where natural openings are unavailable or restrictive, alternative debris disposal methods shall be subject to the written approval of the Contract Administrator.

SECTION 5 - EXCAVATION

5.1 Unless controlled by construction stakes or specific design sheets herein, road/s shall be constructed in accordance with dimensions shown on the Typical Section Sheet.

Excavation and embankment slopes shall be constructed to a uniform line, and left rough for easier vegetation.

Organic material shall be excluded from road prism embankments.

Road pioneering operations shall not undercut the final slope, deposit excavated material outside the clearing limits, or restrict drainage.

5.2 Purchaser or road construction contractor shall not bury merchantable material.

5.3 The construction of road grade and alignment shall conform to the State's marked location. The reconstruction of existing road grades shall conform to the original location except as directed by the contract administrator. Grade and alignment shall have smooth continuity, without abrupt changes in direction.

Construction limitations are as follows:

Favorable Grade	Adverse Grade	Minimum Curve Radius
18%	12%	60 feet

Changes in road grade shall not exceed 7%, except as required in this clause.

Adverse grades on curves shall not exceed 10 percent of the curve radius.

Favorable grades through switchbacks shall not exceed 12%.

Transition grades entering and leaving switchbacks shall not exceed a 5% grade change.

The switchback is defined as, the curved segment of road, between a beginning and end of the same curve, where the change of traffic travel direction is greater than 90 degrees.

Transition grades required to meet switchback grade limitations, shall be constructed on the tangents preceding and departing from the switchbacks.

5.5 Curve widening shall be added to the inside of curves as follows:

2 feet extra	80 to 100 foot radius curves
4 feet extra	60 to 80 foot radius curves

5.7 Roads shall be built to the dimensions shown on the Typical Section Sheet.

5.8 Except as construction staked or designed, excavation slopes shall be constructed no steeper than shown on the following table:

Material Type	Excavation Slope Ratio
Common Earth (on side slopes to 55%)	1:1
Common Earth (55% to 70% side slopes)	3/4:1
Common Earth (on slopes over 70%)	1/2:1
Fractured or loose rock	1/2:1
Hardpan or solid rock	1/4:1

5.9 Excavation and embankment slopes shall be constructed to a uniform line and left rough for easier re-vegetation.

5.10 Except as construction staked or designed, each embankment side shall be widened as follows:

Height at Centerline	Subgrade Widening
Less than 6 feet	2 feet
6 feet and over	4 feet

5.11 Except as construction staked or designed, embankment slopes shall be constructed no steeper than shown on the following table:

Material Type	Embankment Slope Ratio
Common earth and rounded gravel	1-1/2:1
Angular rock	1-1/4:1
Sandy soils	2:1

5.12 All embankment and waste material shall be compacted. The minimum acceptable compaction is achieved by placing embankments in 2 foot or shallower lifts, and routing excavation equipment over the entire width of each lift. Except for areas specifically requiring keyed embankment construction, side hill embankments too narrow to accommodate excavation equipment may be placed by end dumping or side casting until sufficiently wide to support the equipment.

5.14 Except as construction staked or designed, where side slopes exceed 45 percent, full bench construction shall be utilized for the entire subgrade width.

5.15 Waste material may be deposited adjacent to the road prism on side slopes up to 55 percent if the waste material is compacted, free of debris, and more than 50 feet away from live streams and/or culvert installations. On side slopes of 55 percent or more, all excavation shall be endhauled or pushed to designated embankment sites, except as approved in writing by the Contract Administrator. All waste embankments shall be compacted in horizontal layers not exceeding 2 feet.

5.24 Turnouts shall be constructed at a maximum distance of 1000 feet apart, unless shown otherwise on drawings. Turnouts shall be intervisible.

SECTION 6 - DRAINAGE

6.1 Finished subgrade and running surfaces shall be sloped as shown on the Typical Section Sheet, uniform, firm, rut-free, and shaped to ensure road surface runoff in an even, unconcentrated manner.

6.2 Berms shall be removed from shoulders to permit water runoff. The construction of ditchouts will be required where ponding will result from the effects of sidecast debris and waste material.

6.3 Temporary road culverts shall be installed as part of this contract. The minimum requirements shall be as designated on the Culvert and Drainage list, and the Road Plan map.

Temporary culverts shall be supplied by the purchaser, and shall remain the property of the purchaser. Corrugated metal pipe and/or polyethylene culverts are specified. If the purchaser desires to provide an alternative stream crossing structure, the design shall be subject to written approval by the Contract Administrator.

Temporary culverts shall be removed within 30 days following completion of timber harvesting and site cleanup, or as directed by the Contract Administrator. Excavated material from the temporary crossings shall be scattered on side slopes less than 45%, and 20 feet beyond the normal high water marks. Removal of temporary crossings shall not introduce soil or debris into live stream crossings.

6.5 Metal, concrete, or plastic culverts and bands removed from the roadbed shall be removed from state land prior to termination of this contract.

6.11 Culvert, downspout, flume and energy dissipater installation shall be in accordance with the Culvert and Drainage Specification Detail.

6.14 Cross drains and surface culverts on road grades in excess of 3 percent shall be skewed at least 30 degrees, from perpendicular to the road centerline.

Cross drain culverts shall be installed at a slope steeper than the incoming ditch grade, but not less than 3 percent nor more than 10 percent.

6.16 Installation of culverts 30 inches in diameter and over shall be subject to written approval by the Contract Administrator prior to commencing the backfill.

Pipe arches and/or multi-plate culverts shall be installed according to the National Corrugated Pipe Association Installation Manual, and are subject to the inspection and approval of the Contract Administrator prior to placement and backfill.

6.18 Outfalls from drainage structures shall not terminate directly on unprotected soil because of the potential for erosion. Downspouts, flumes and energy dissipaters shall be installed to prevent erosion, and are subject to the approval of the Contract Administrator.

Downspouts and flumes longer than 10 feet shall be staked on both sides at maximum intervals of 10 feet with 6-foot heavy-duty steel posts, and fastened securely to the posts with No. 10 galvanized smooth wire, in accordance with the Culvert and Flume Installation Detail.

6.20 Ditch reshaping, new ditch construction, and headwall construction shall be done concurrently with construction or reconstruction of the subgrade, and prior to any application of surfacing rock. Ditches shall drain to culverts, ditchouts, and natural drainages. The shape of ditches shall be in accordance with the Typical Section Sheet and the Culvert and Drainage Specification Detail.

Site indicative ditching may be required on this project regardless of road template specifications on the Typical Section Sheet, which may require insloping or outsloping of the subgrade. The purchaser/operator will be required, as part of this contract, to construct

ditches as directed by the Contract Administrator, where unforeseen site conditions dictate. Ditching will generally be required to control runoff on steeper grades, in conjunction with culvert installations, and approaches to fill embankments.

6.22 Catch basins shall be constructed to resist erosion, with back slopes consistent with standards in Section 5. Minimum dimensions shall be 4 feet wide and 4 feet long, unless specified otherwise on the Culvert List.

6.23 Headwalls shall be constructed in accordance with the Culvert and Drainage Specification Detail. Headwalls shall be constructed at all cross drain culverts, except temporary culverts. Headwalls shall also be constructed at any culvert identified on the Culvert and Drainage List that specifies the placement of riprap.

6.24 Embankment slopes adjacent to culvert inlets and/or outlets at live stream crossings shall be armored with riprap, for a distance of 1 culvert diameter on each side of the pipe, and 1 culvert diameter above the pipe in accordance with the Culvert and Drainage Specifications Detail.

6.28 Rolling dips shall be constructed in accordance with the Rolling Dip Detail, at a maximum spacing that will produce a vertical drop of no more than 10 feet between constructed dips, or between natural drainage paths. The spacing and number of rolling dips may be adjusted by the Contract Administrator.

Rolling dips are constructed by increasing the outslope of the subgrade surface at the required locations. This includes a gradual transition into and out of the rolling dip from the subgrade template as specified on the Typical Section Sheet.

Excavated material from rolling dip construction shall not remain on the subgrade surface in the form of a berm or waterbar. Sidecasting of material removed with excavation equipment shall be sufficient to form a ditchout to direct surface runoff into, through, and away from the rolling dip, so as to not create ponding.

Discharge of water from rolling dips should be directed to reduce sediment movement and sideslope erosion. Direct the discharge into debris concentrations, onto rocky sites, preferably onto ridges rather than directly into draws. Construction location and workmanship are subject to the approval of the Contract Administrator.

6.30 Riprap required as part of the contract shall conform to the minimum riprap specifications for the Riprap Type listed below. Minimum specifications require that riprap be placed at a width of one culvert diameter on each side of the culvert entrance and/or outlet, and to a height of two culvert diameters above the top of the culvert. Use of materials and other sources of riprap are subject to the written approval of the Contract Administrator.

<u>Riprap Type</u>

Light Loose Riprap

6.32 Riprap shall be set in place in conjunction with the construction of embankments. Riprap shall be placed on shoulders, slopes, around culvert inlets and/or outlets as designated on the Culvert and Drainage List or as directed by the Contract Administrator. No placement by end-dumping or dropping of riprap shall be allowed. Riprap shall not restrict the flow of water into culvert inlets or catchbasins.

6.33 Riprap specifications require the material to be hard, sound and durable. It shall be free from segregation, seams, cracks and other defects that tend to destroy its resistance to weather and stream action. The riprap material shall be free of rock fines, soil, organic debris, or other extraneous material.

Heavy Loose Riprap - shall meet the following grading requirements:

Min / Max	Minimum Size	Maximum Size
40% / 90%	35" (2001 lbs)	---
70% / 90%	20" (373 lbs)	---
10% / 30%	---	10" (47 lbs)

Light Loose Riprap - shall meet the following grading requirements:

Min / Max	Minimum Size	Maximum Size
20% / 90%	20" (373 lbs)	36" (2177 lbs)
80% / --	12" (81 lbs)	30" (1260 lbs)
10% / 20%	---	10" (47 lbs)

Concrete Slabs - shall meet the following requirements:

Minimum thickness (h) of 3", minimum width (w) of 12", minimum depth (d) of 12". Slabs shall be placed horizontal in a shingled effect according to the Riprap Specifications.

Concrete Sacks - shall meet the following requirements:

Minimum empty sack dimensions: 12" wide by 24" deep. Aggregate mixture shall be 4 parts sand/gravel and a minimum of 1 part Portland Cement. Openings of each sack shall be securely closed and placed opposite to potential water turbulence. Sacks shall be laid horizontal, in a shingled effect, according to the Riprap Specifications.

SECTION 7 - ROCK

7.2 Rock used under this contract must be obtained from an off site source. Rock sources used will be subject to the written approval of the Contract Administrator.

7.20 Rock applied as surfacing, as designated on the Rock list shall be angular material and have a minimum of 90 percent of the top 4 inches pass a 3-inch square opening. Specifications may be adjusted with approval from the Contract Administrator.

7.22 The Operator may use in place processing, such as a grid roller or other method, if suitable crushing can be demonstrated to meet the surfacing size restrictions. The use of in place processing methods is subject to written approval by the Contract Administrator.

7.30 Placement and compaction of rock shall be accomplished in lifts not to exceed 6 inches uncompacted depth.

7.31 Each lift of rock shall be sloped as shown on the Typical Section Sheet, and shall be uniform, firm, rut free, and shaped to ensure surface runoff in an even, unconcentrated manner.

7.32 Placement of rock shall be accomplished with a crawler tractor in lifts no greater than 6", unless the Contract Administrator approves other methods in writing.

Compaction shall be completed after rock has been spread into place, by walking the spread equipment back and forth over the entire spread surface. The traffic of rock hauling equipment shall be directed to use the entire running surface, and avoid driving in the same tracks, to assist in surface compaction.

7.40 Rock shall be applied as designated on the Rock List and/or spot patching as directed by the Contract Administrator. Quantities specified herein are compacted yards. Loose yardage is pit specific and must be applied by the purchaser to meet specified rock depths.

7.41 Measurement of specified rock depths, are defined as the compacted depth/s using the compaction methods required in this contract. Specified rock depths are minimum requirements, and shall not be subject to reduction.

7.42 Turnouts, turnarounds, and curve widening shall have rock applied to the same depth and specifications as the traveled running surface.

SECTION 8 - STRUCTURES

8.80 The transportation and installation of a temporary bridge is required as part of this contract. A bridge is available for use within the terms of the contract, without charge from the State. The Purchaser may submit alternate plans for constructing the crossing involved, to the State for consideration. The State reserves the right to make final acceptance or rejection of all alternative proposals to the plans within this contract.

8.81 The bridge installation portion of this contract shall require the supervision of the State for all plans and operations. The State, as referred to herein, shall be the Regional Engineer at the Northeast Region Headquarters, in Colville, WA, and/or designee.

8.82 The contractor is required to perform excavation and site preparation, relocation of the bridge, and installation at the site designated, as part of this contract. The contractor is also required to disassemble and deliver the bridge back to the region office before sale closeout. The bridge shall be free from any foreign material before transporting. The contractor shall be required to obtain approval for all plans, methods and equipment used for the installation, prior to commencement of work.

Bridge installation shall consist of transportation from the pickup point to the site designated in this contract, assembly, launching, positioning, leveling, installing back walls, construction and compaction of the approach embankments to the bridge.

Excavation of the footings and/or placement of the rock for the spread footings shall not commence without the presence of the Region Engineer or designee on site during the progress of construction, or as provided only for, by written approval from the Contract Administrator.

The bridge to be installed as per this contract is located at:

DNR Northeast Region Headquarters
225 Silke Road
Colville, WA 99114

Contact: Dale Danell, Region Engineer
(509) 684-7474

The bridge is partially assembled and ready to load for transportation by truck and trailer to the jobsite.

The contractor is required to excavate and construct spread footings for the bridge according to the following minimum specifications. Soil and water conditions that are unforeseen prior to excavation may require modification of the minimum specifications to achieve the intended stability and elevation of the finished bridge. Excavated footings shall be filled and compacted with 12-36 inch angular rock and compacted to grade, or as approved otherwise by the State.

Road	Location	Length	Bridge Type
E324316K	5+92	42 ft	Steel Beam

Minimum Dimensions of excavation pit and rock spread footings on each bridge end shall be as follows:

Depth below native ground surface:	5	feet
Dimensions of each pit base:	12 x 30	feet
Estimated rock per footing base:	35	Cu Yards
Estimated Fine Surface rock per footing base:	5	Cu Yard
Dimensions of top of each rock footing:	6 x 22	feet
Estimated rock per abutment/wingwall:	5	Cu Yards
Estimated total rock required for bridge install:	90	Cu Yards

8.84 Installation of all stream-crossing structures shall be in accordance with the manufacturer's requirements. The contractor is responsible for the repair or replacement of damaged materials. Repairs to structural materials will be made only with the direction of the manufacturer, and shall not be commenced without final written approval from the Contract Administrator, representing the State.

8.88 The bridge installation shall be in the general format as depicted by the Typical Steel Bridge Installation diagram. The contractor is required to excavate footings perpendicular to, and centered across the road centerline to an elevation below the potential scour depth of the stream, or as determined by the State. Footings shall be filled and compacted with angular rock, both ends of the bridge compacted and graded to the same elevation, to accept the placement and positioning of the grade/sill bearing beams, or as approved otherwise in writing by the State.

Minimum excavation depth below elevation of channel bottom:	2 feet
Minimum elevation of bottom of stringers above channel bottom:	5 feet

8.90 Riprap shall be placed from the bearing sills to the stream channel on both sides to armor the stream bank underneath the bridge prior to the installation of the bridge onto the sills. Riprap shall meet the Light Riprap Specifications. In the vicinity adjacent to the bearing sills, riprap shall be of suitable size so as to not bear against the bottom of the bridge stringers.

8.94 The State will be responsible for approving or rejecting submitted plans on or before five working days after receipt of construction plans at the Region Headquarters Office. The Contractor does not have approval to commence purchasing, mobilization, or construction, until written authority to proceed is issued by the Region Office.

Upon receiving authority to proceed from the State, the Contractor shall provide three complete sets of finalized plans to the Region Engineer within three working days following receipt of the approval to proceed. Any omissions to plans shall be the responsibility of the contractor to correct, and to resubmit a finalized set of plans.

SECTION 10 - ROAD AND LANDING ABANDONMENT

10.1 The following road/s shall be abandoned by the Purchaser at the termination of use or within 30 days following completion of timber harvest removal prior to the termination of this contract.

Road	Stations	Type
E324316F	29+07 – 39+00	Light
E324316K	5+92 – 23+92	Light

10.3 Light Abandonment shall consist of: constructing non-drivable water bars in conformance with the attached NON-DRIVABLE WATER BAR DETAIL at a maximum spacing which will produce a vertical drop of no more than 10 feet between water bars or between natural drainage paths and with a maximum spacing of 100 feet; or as marked in the field; skewing water bars at least 30 degrees from perpendicular to the road centerline on roads

in excess of 3% grade; keying water bars into ditchline; blocking the roads to 4X4 traffic using stumps, large boulders, and logging debris; removing culverts and bridges from State Land; removing ditch cross drain culverts and leaving the resulting trench open; sloping all trench walls and approach embankments no steeper than 1.5:1; grass seeding concurrently with abandonment; covering, concurrently with abandonment, all exposed soils within 100 feet of any live stream, with an 8-inch deep layer of straw.

10.7 On the following road/s, Purchaser shall remove existing culverts from live streams and leave the resulting trench open with excavation slopes and trench bottom as specified. The trench bottom shall conform to natural stream profile. Excavated material shall be placed in the waste area approved in writing by the Contract Administrator. Culvert removal from live streams shall be in accordance with the Hydraulic Project Approval.

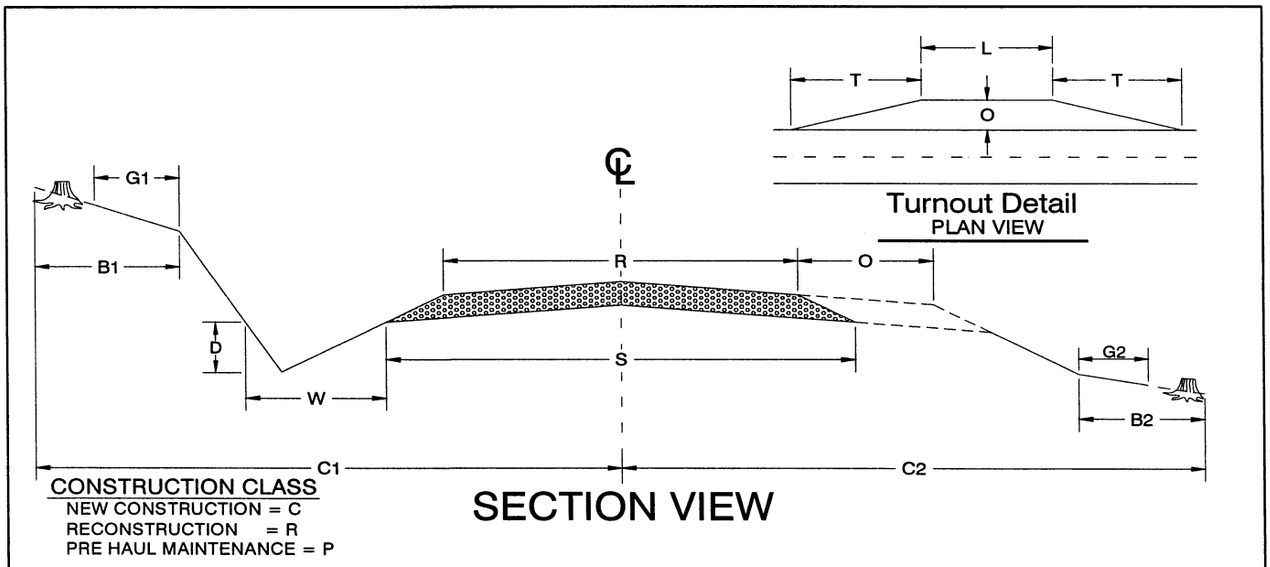
Road	Stations	Waste Area
E324316F	30+07 & 31+79	At location designated by Contract Administrator.

STATE OF WASHINGTON

DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-076911 **Name of Sale: Solly**

TYPICAL SECTION SHEET



ROAD NAME	START STATION	END STATION	CONSTRUCTION CLASS	FULL BENCH	KEYED FILL	SUBGRADE WIDTH (S)	ROAD WIDTH (R)	INSLOPE "/10'	OUTSLOPE "/10'	CROWN " AT CL	DITCH WIDTH (W)	DITCH DEPTH (D)	DITCH 2 SIDES	GRUBBING CUT BANK (G1	GRUBBING FILL TOE (G2)	ROAD CUT CLEARING (B1)	ROAD FILL CLEARING (B2)	R/W CUT CLEARING (C1)	R/W FILL CLEARING (C2)
E324316E	9+93	21+68	R			14'	12'		4					2'	2'	4'	4'		
E324316G	0+00	4+96	P				12'		4							4'	4'		
	4+96	22+32	R			14'	12'		4					2'	2'	4'	4'		
E324316H	0+00	10+81	C			14'	12'		4					2'	2'	4'	4'		
E324316K	0+00	4+88	P				12'		4							4'	4'		
	4+88	23+92	C			14'	12'		4					2'	2'	4'	4'		
	23+92	33+94	R			14'	12'		4					2'	2'	4'	4'		
E324316J	0+00	7+94	C			14'	12'		4					2'	2'	4'	4'		

DATE: 11/3/2004 **DRAWN BY: RK**

STATE OF WASHINGTON

DEPARTMENT OF NATURAL RESOURCES

Application No.: 30-076911 **Name of Sale: Solly** **Date: 11/3/2004**

CULVERT & DRAINAGE LIST (Page 1 of 2)

Road Name	Station	CULVERT			LENGTH			RIPRAP			Ditchout	Staked	Rolling Dip	NOTES
		Diameter	Gauge	Skew	Culvert	Downspout	Flume	Inlet C.Y.	Outlet C.Y.	Catchbasin				
E324316F	18+78												X	9
	30+07													8
	31+79													8
E324316G	6+70												X	9
	10+06												X	9
	18+01												X	9
	21+01												X	9
E324316H	1+85												X	9
	8+63												X	9
E324316K	5+92													Temporary Bridge
	8+27												X	9
	14+64												X	9
	16+54												X	9
	18+71												X	9
	20+47												X	9
	22+46	18"			32'									Temporary pipe
	22+76	18"			32'									Temporary pipe
	28+42												X	9
	30+24												X	9

STRUCTURE NOTES

1. Install Headwall - See Detail D1
2. Install Catchbasin - See Detail D1
3. Armor Catchbasin - See Detail D1
4. Armor Ditch
5. Heavy Loose RipRap
6. Light Loose RipRap
7. Step Bevel Pipe Ends
8. Remove Existing Pipe
9. See Rolling Dip Detail D5
10. See Pipe Installation Detail D1
11. Install Energy dissipator - See D1

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CULVERT & DRAINAGE LIST (Page 2 of 2)

Road Name	Station	CULVERT			LENGTH			RIPRAP			Ditchout	Staked	Rolling Dip	NOTES
		Diameter	Gauge	Skew	Culvert	Downspout	Flume	Inlet C.Y.	Outlet C.Y.	Catchbasin				
E324316J	1+99												X	9
Three additional dips shall be placed as directed by the Contract Administrator.														

STRUCTURE NOTES

1. Install Headwall - See Detail D1
2. Install Catchbasin - See Detail D1
3. Armor Catchbasin - See Detail D1
4. Armor Ditch
5. Heavy Loose RipRap
6. Light Loose RipRap
7. Step Bevel Pipe Ends
8. Remove Existing Pipe
9. See Rolling Dip Detail D5
10. See Pipe Installation Detail D1
11. Install Energy dissipator - See D1

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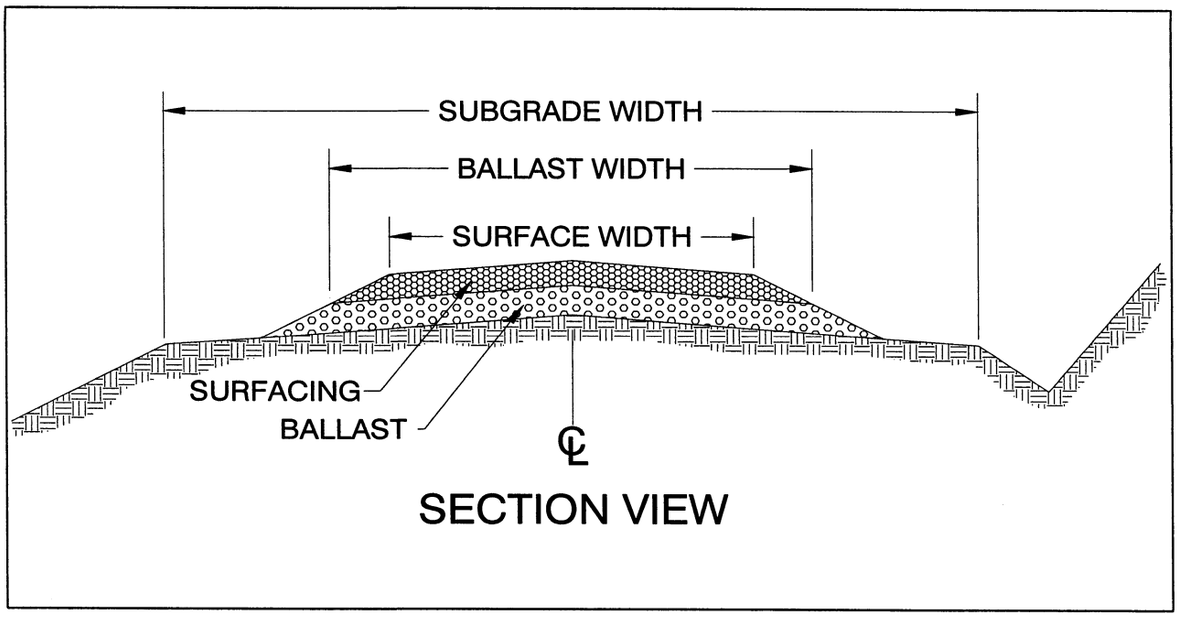
ROCK LIST



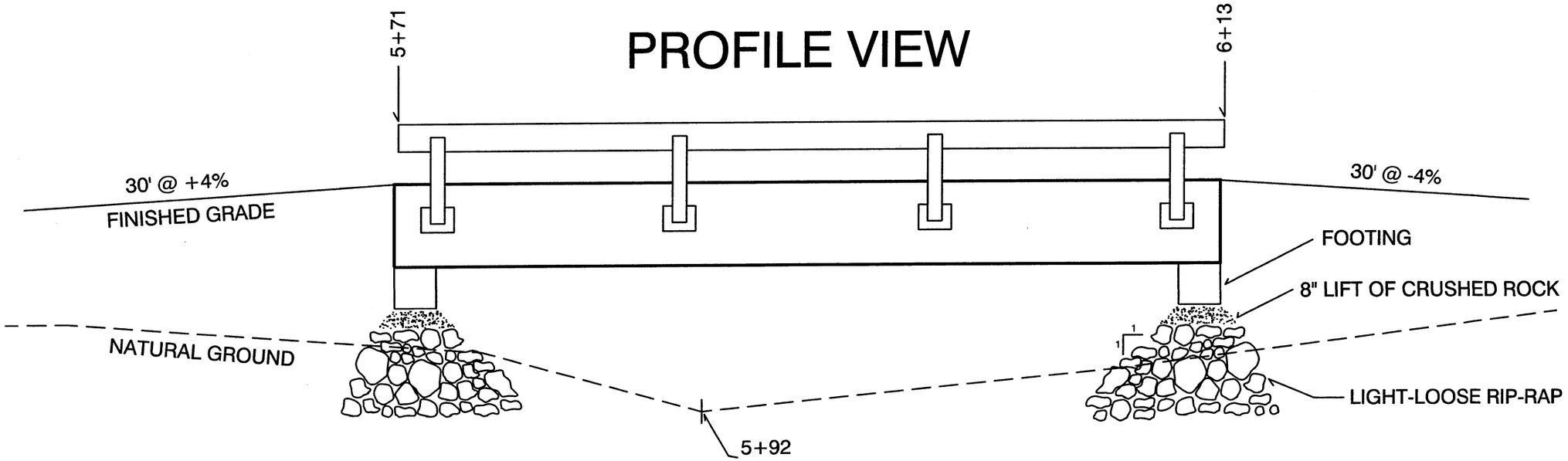
SECTION VIEW

1. ROCK DEPTHS ARE DEFINED AS COMPACTED DEPTHS.
2. QUANTITIES LISTED ARE COMPACTED, LOOSE YARDS DEPENDENT ON SOURCE.
3. ROCK SLOPES SHALL BE 1.5(H) : 1(V).
4. ALL ROCK SOURCES ARE SUBJECT TO APPROVAL BY THE CONTRACT ADMINISTRATOR.

ROAD NAME	START STATION	END STATION	SUBGRADE WIDTH (ft)	BALLAST SOURCE	BALLAST WIDTH (ft)	BALLAST DEPTH (in)	BALLAST QUANTITY (cu.yd./sta)	SURFACE SOURCE	SURFACE WIDTH (ft)	SURFACE DEPTH (in)	SURFACE QUANTITY (cu.yd./sta)	FABRIC WIDTH (ft)
50 yards of 3" minus rock is required to be placed as directed by the Contract Administrator.												

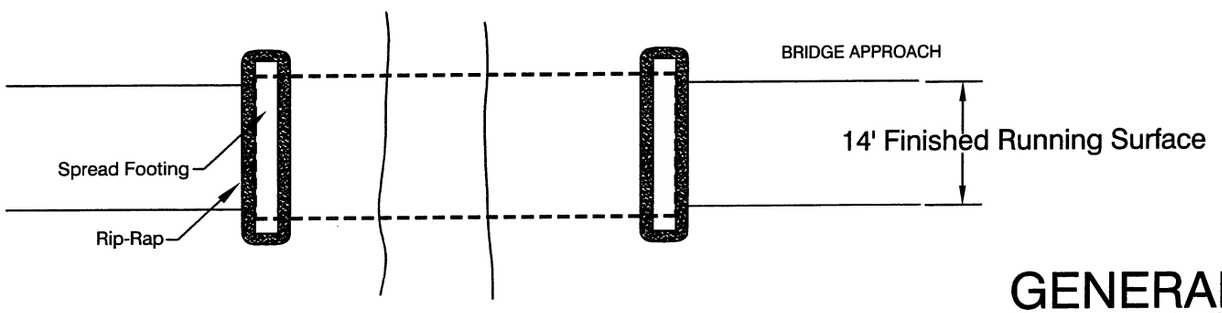
DATE:

PROFILE VIEW



Purchaser shall provide a minimum of:
* 10 yds 1.5" minus angular crushed rock
* 80 yds light-loose rip-rap

PLAN VIEW



GENERAL NOTES

1. Bridge Installation shall be in accordance with the manufacturer's requirements and as per contract specifications and HPA requirements.

2. Any variation in specifications shall be approved by the Contract Administrator prior the commencement of such work.

NORTHEAST REGION
COLVILLE, WASHINGTON

TYPICAL BRIDGE INSTALLATION

WASHINGTON STATE DEPARTMENT OF
Natural Resources

REVISED: